Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1.-37. (Cancelled)

Claim 38. (Currently Amended) A return-to-zero (RZ) recovery [[The]] system comprising: of claim 35

first recovery unit configured to receive a data signal and identify a first type of data transition and determine a first phase information when the first type of data transition is identified;

second recovery unit configured to receive the data signal and identify a second type of data transition and determine second phase information when the second type of data transition is identified; and

wherein the first recovery unit generates a first recovered clock signal based on the determined first phase information and the second recovery unit generates a second recovered clock signal based on the determined second phase information; and

further comprising an interpolator configured to generate a third recovered clock signal based on the first recovered clock signal and the second recovered clock signal; and

wherein the data signal is a RZ data signal and the system further comprises a sampling unit and a filter, the filter configured to convert the RZ data signal into a non-return-to-zero (NRZ) data signal and provide the NRZ data signal to the sampling unit.

Claim 39. (Original) The system of claim 38 wherein the sampling unit samples the data signal using the third recovered clock signal from the interpolator.

Claim 40. (Currently Amended) <u>A return-to-zero (RZ) recovery</u> [[The]] system <u>comprising:</u> ~~of claim 34~~

<u>first recovery unit configured to receive a data signal and identify a first type of data transition and determine a first phase information when the first type of data transition is identified;</u>

<u>second recovery unit configured to receive the data signal and identify a second type of data transition and determine second phase information when the second type of data transition is identified; and</u>

<u>wherein the first recovery unit generates a first recovered clock signal based on the determined first phase information and the second recovery unit generates a second recovered clock signal based on the determined second phase information; and</u>

wherein the data signal is a RZ data signal and the system further comprises a sampling unit and a filter, the filter configured to convert the RZ data signal into a non-return-to-zero (NRZ) data signal and provide the NRZ data signal to the first recovery unit.

Claim 41. (Original) The system of claim 40 wherein the second recovery unit is disabled.

Claims 42.-46. (Cancelled)

Claim 47. (Previously Presented) A return-to-zero (RZ) recovery system comprising:

first recovery unit configured to receive a data signal and identify a first type of data transition and determine a first phase information when the first type of data transition is identified;

second recovery unit configured to receive the data signal and identify a second type of data transition and determine second phase information when the second type of data transition is identified; and

wherein the data signal is a RZ data signal and the system further comprises a filter configured to convert the RZ data signal into a non-return-to-zero (NRZ) data signal and provide the NRZ data signal to one of the first and second recovery units.

Claims 48-61. (Cancelled)